Sealing device for a Radial Swivel Motor

Abstract

Swivel motors have a large number of tightness problems on the inside, in particular in a broad operating temperature range. Therefore, to improve the tightness over a temperature range of -40°C to +130°C, a sealing device 20 is suggested, which consists of an inner soft sealing element 20 and a plurality of outer rigid sealing elements 21, 22, 23, 24, whereby the soft sealing element 20 and the rigid sealing elements 21, 22, 23, 24 are undetachably connected to one another, the circumferential sealing surfaces of the rigid sealing elements 21, 22, 23, 24, in the unloaded state, close flush with the sealing surface of the soft sealing element 20, the rigid sealing elements 21, 22, 23, 24 are spaced apart from one another by at least one radial compensating groove 25 and at least one axis-parallel compensating groove 26, and the compensating grooves 25, 26 are arranged on both sides of the sealing device, such that the compensating grooves 25, 26 on one side are not overlapped by the compensating grooves 25, 26 on the other side.

Figure 3